

Title (en)

DISCHARGE HEAD, DISCHARGE UNIT, AND LIQUID DISCHARGE APPARATUS

Title (de)

AUSSTOSSKOPF, AUSSTOSSEINHEIT UND FLÜSSIGKEITSAUSSTOSSVORRICHTUNG

Title (fr)

TÊTE D'ÉVACUATION, UNITÉ D'ÉVACUATION ET APPAREIL D'ÉVACUATION DE LIQUIDE

Publication

EP 4126553 A1 20230208 (EN)

Application

EP 21713145 A 20210316

Priority

- JP 2020050474 A 20200323
- JP 2020171568 A 20201009
- IB 2021052151 W 20210316

Abstract (en)

[origin: WO2021191728A1] A discharge head includes a nozzle, a valve body, a piezoelectric element, and a first biasing unit. The nozzle is configured to discharge liquid. The valve body is configured to open and close the nozzle. The piezoelectric element is configured to drive the valve body. The first biasing unit is disposed in parallel with the piezoelectric element. The piezoelectric element is configured to drive the valve body in a direction to open the nozzle when a voltage is applied to the piezoelectric element. The first biasing unit is configured to bias the valve body in the direction to open the nozzle.

IPC 8 full level

B41J 2/14 (2006.01)

CPC (source: EP KR US)

B41J 2/14201 (2013.01 - EP KR US); **B41J 2202/05** (2013.01 - EP KR US); **B41J 2202/12** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2021191728 A1 20210930; CN 115298033 A 20221104; CN 115298033 B 20240426; EP 4126553 A1 20230208; JP 2021151767 A 20210930; KR 20220133990 A 20221005; US 2022379609 A1 20221201

DOCDB simple family (application)

IB 2021052151 W 20210316; CN 202180022453 A 20210316; EP 21713145 A 20210316; JP 2020171568 A 20201009; KR 20227029977 A 20210316; US 202117791553 A 20210316